run channel. New claims 7-14 recite a roof molding, side molding and window molding, respectively. Support for the amendment can be found in originally filed claims 4-6. Support for the relative placement of the surface layer and underlayer can be found in the specification at page 1, line 9 to page 2, line 4 teaching that portions exposed to sunlight and that a laminate having a surface layer and underlayer is configured to be used in glass-run channel, roof molding, side molding and window molding.

No new matter within the meaning of § 132 has been added by the amendment.

Accordingly, Applicant respectfully requests the Examiner to enter the amendments, reconsider and allow all claims pending in this application.

1. **Rejection of Claims 1-6 under 35 U.S.C. § 102(b)**

The Office Action rejects claims 1-6 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,362,572 ("Hamada et al."). The Office Action states:

> Hamada et al teach a two-layer thermoplastic elastomer sheet useful in producing molded products for automobiles comprising a skin layer and a reverse surface layer wherein a first laminate embodiment comprises [I] a skin layer

composed of a thermoplastic elastomer containing 1-85 parts by weight of a polyolefin resin (A) such as homopolymers and copolymers of ethylene or propylene or a mixture of polyethylene and polypropylene having a mixing ratio of 10/90 to 70/30 polyethylene/polypropylene), and 15-99 parts by weight of an alpha-olefin copolymer rubber (B) such as an ethylene-propylene-non-conjugated rubber; and [11] a reverse surface layer composed of a thermoplastic elastomer containing 6 to 90 parts by weight of polyolefin resin (A), and 10 to 94 parts by weight of alpha-olefin copolymer rubber (B); wherein the skin and surface layers may further contain 5 to 100 part by weight, more preferably 20 to 70 parts by weight, per 100 parts by weight of the sum of polyolefin resin (A) and olefin rubber (B), of a mineral oil softening agent (D); and wherein the thermoplastic elastomers of both layers may be partially crosslinked by dynamically heat treating the blends in the presence of a crosslinking agent (Abstract; Col. I, line 64-Col. 2, line 17; Col. 2, line 56-Col. 6, line 21.) In a second preferred embodiment, Hamada et al teach a second two-layer thermoplastic elastomer sheet including a skin layer (1) which includes a mixture of 100 parts by weight of the partially crosslinked elastomer and 5 to 100 parts by weight of a polyolefin resin (E) such as polyethylene, wherein the mixture is dynamically heat treated in the presence of a crosslinking agent (Col. 3, lines 6-11; Col. 5, lines 16-28.) Hamada et al further teach examples that read upon the instantly claimed weight parts and oily softening agent ratios, specifically with regards to instant Claim 1, Examples 1 and 2 read upon the invention wherein Example 1 teaches a laminate comprising a skin layer of 37 weight parts polyolefin, 63 weight parts ethylene-alpha-olefin non-conjugated polyene rubber, 30 parts oily softening agent dynamically heat treated with a crosslinking agent; and a surface layer comprising 50 weight parts polyolefin, 50 weight parts ethylene-alpha-olefin non-conjugated polyene rubber, 30 parts oily softening agent

> dynamically heat treated with a crosslinking agent; hence when calculated according to the instantly claimed basis, the weight parts of each of the components fall within the instantly claimed ranges and the oily ratio (a) is greater than the oily ratio (b) (Example 1.) With regards to instant Claim 2, Example 3 which incorporates polyethylene into the skin layer reads upon the weight part ranges instantly claimed wherein the oily ratio (a') is greater than 0.8 of the oily ratio (0') as instantly claimed. With regards to Claims 3-6, the Examiner takes the position that the terms "glass-run channel" and "roof molding, side molding or window molding for automobiles" recited in the preamble do not add any additional structure to the instantly claimed laminate and hence the laminate taught by Hamada et al anticipates these claims.

Applicant respectfully traverses the anticipation rejection because Hamada et al. fails to teach the presently claimed ratio (a) $\geq$ ratio (b) as drawn to a surface layer and a underlayer drawn to the presently claimed final products. In particular, the skin layer [I] of Hamada et al. corresponds to the presently claimed "surface layer" having a ratio (a) and the skin layer [II] corresponds to the presently claimed "underlayer" having a ratio (b). Upon calculating the ratio relationship of the component taught by the Examples 1 and 2 of Hamada et al., it is clear that the ratio relationship is ratio $(a)_{Hamada}$ < ratio $(b)_{Hamada}$, which is the reverse of the presently claimed relationship of ratio (a) $\geq$ ratio (b). Based on the opposite ratio relationship taught by the cited reference, one of

ordinary skill would clearly have been unable to make the presently claimed invention without undue experimentation.

Turning to the rule, the Federal Circuit has spoken clearly and at some length on the question of anticipation. Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Those elements must be expressly disclosed as in the claim. In re Bond, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

The prior art reference must also be enabling, thereby placing the allegedly disclosed matter in the possession of the public. In re Brown, 241 U.S.P.Q. 245, 249 (C.C.P.A. 1964). In order to accomplish this, the reference must be so particular and definite that from it alone, without experiment or the exertion of his own inventive skill, any person versed in the art to which it pertains could construct and use it. Id. at 250.

In the present application, presently pending claim 1 recites a glass molding, comprising:

(i) a surface layer comprising a polyolefinic thermoplastic elastomer (A) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a

polyolefin resin (X), 30 to 70 wt. parts of a rubber component (Y) comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z), the total of (X), (Y) and (Z) being 100 wt. parts, and

(ii) an underlayer comprising a polyolefinic thermoplastic elastomer (B) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X'), 30 to 70 wt. parts of a rubber component (Y') comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z'), the total of (X'), (Y') and (Z') being 100 wt. parts, which underlayer is laminated on the surface layer,

wherein the ratio (a) of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z), or if polyethylene is incorporated, to the total of the rubber component (Y), the oily softening agent (Z) and polyethylene in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z'), or if polyethylene is incorporated, to the total of the rubber component (Y'), the oily softening agent (Z') and polyethylene in said thermoplastic elastomer (B) satisfy the relationship:

$$\text{ratio (a)} \geq \text{ratio (b)}.$$

In contrast, the cited Hamada et al. reference teaches the relationship:

$$\text{ratio (a)}_{\text{Hamada}} < \text{ratio (b)}_{\text{Hamada}}.$$

Notably, the skin layer [I] of Hamada et al. corresponds to the presently claimed "surface layer" having a ratio (a) while the skin layer [II] of Hamada et al. corresponds to the presently claimed "underlayer" having a ratio (b).

This can be seen from the teaching in Hamada et al. that the thickness of the skin layer [I] constituting a skin layer of the vacuum forming molded product is generally in the range of 0.01 to 50 mm, preferably 0.10 to 20 mm, while the thickness of the other layer [II] constituting the inner layer of the vacuum forming molded product is generally in the range of 0.01 to 100 mm, preferably 0.10 to 50 mm. See Hamada et al. at col. 9, lines 27-34. Clearly, the skin layer composed of TPE (I) and the reverse surface layer composed of TPE (II) in Example 1 of Hamada et al. correspond to the surface layer and the underlayer of the present invention, respectively.

Turning to the calculation of the ratios of Hamada et al., it is noted, as in the Office Action, that Example 1 of Hamada et al. teaches a laminate comprising a skin layer of 37 weight parts polyolefin, 63 weight parts of rubber and 30 parts oily

softening agent. Hence, the ratio of the skin layer [I] of Hamada et al. can be represented as:

$$\frac{30\ (Z)}{63\ (Y) +\ 30\ (Z)} = \text{ratio } (a)_{\text{Hamada}}$$

Notably, claim 1 defines the ratio (a) as oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z).

As further noted in the Office Action, Example 1 of Hamada et al. also teaches an inner layer comprising 50 weight parts polyolefin, 50 weight parts rubber and 30 parts oily softening agent. Hence, the ratio of the inner skin layer [II] of Hamada et al. can be represented as:

$$\frac{30\ (Z')}{50\ (Y') +\ 30\ (Z')} = \text{ratio } (b)_{\text{Hamada}}$$

Again, claim 1 defines the ratio (b) as the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z').

Based on a quick calculation, it can easily be seen that Hamada et al. teaches the relationship of ratio $(a)_{\text{Hamada}}$ < ratio $(b)_{\text{Hamada}}$. Although cited in the Office Action, Example 2 of Hamada et al. also shows the same equality relationship ratio $(a)_{\text{Hamada}}$ < ratio $(b)_{\text{Hamada}}$ wherein only the rubber component (Z) of the surface layer is slightly higher at 65 weight parts and the

rubber component (Z') of the inner layer is also slightly higher at 55 weight parts. Clearly, the cited reference fails to teach the presently claimed relationship of ratio (a) ≥ ratio (b).

Accordingly, Applicant submits that each and every claim limitation of the claimed final products is not taught by Hamada et al. and requests the Examiner to reconsider and withdraw the rejections of claims 1-6 under 35 U.S.C. § 102(b).

CONCLUSION

In light of the foregoing, Applicant submits that the application is now in condition for allowance. The Examiner is therefore respectfully requested to reconsider and withdraw the rejection of the pending claims and allow the pending claims. Favorable action with an early allowance of the claims pending is earnestly solicited.

Respectfully submitted,

SHERMAN AND SHALLOWAY

Attorney for Applicants
Roger C. Hahn
Reg. No. 46,376

SHERMAN AND SHALLOWAY
413 N. Washington Street
Alexandria, Virginia 22314
703-549-2282

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	Group Art Unit: 1773
KARAIWA	Examiner: JACKSON, M. R.
Serial No. 09/649,092	
Filed: August 28, 2000	

For: **THERMOPLASTIC ELASTOMER LAMINATED MATERIAL**

APPENDIX A

Please amend the following claims as indicated in the following claims according to 37 C.F.R. § 1.121 concerning a manner for making claim amendments.

1. (Currently amended) A ~~laminated material~~ glass-run channel comprising:

(i) a surface layer comprising a polyolefinic thermoplastic elastomer (A) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X), 30 to 70 wt. parts of a rubber component (Y) comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z), the total of (X), (Y) and (Z) being 100 wt. parts, and

(ii) an underlayer comprising a polyolefinic thermoplastic elastomer (B) manufactured by dynamically heat treating, in the

presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X'), 30 to 70 wt. parts of a rubber component (Y') comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z'), the total of (X'), (Y') and (Z') being 100 wt. parts, which underlayer is laminated on the surface layer,

wherein the ratio (a) of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z), or if polyethylene is incorporated, to the total of the rubber component (Y), the oily softening agent (Z) and polyethylene in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z'), or if polyethylene is incorporated, to the total of the rubber component (Y'), the oily softening agent (Z') and polyethylene in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a) $\geq$ ratio (b).

2. (Currently amended) A ~~laminated material~~ glass-run channel according to Claim 1, wherein the polyolefin resin (X) and/or the polyolefin resin (X') contain(s) polyethylene and in addition the ratio (a') of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent

(Z) in said thermoplastic elastomer (A) and the ratio (b') of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z') in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a') $\geq$ 0.8 X ratio (b').

Claims 3-6 (Canceled)

7. (New) A roof molding comprising:

(i) a surface layer comprising a polyolefinic thermoplastic elastomer (A) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X), 30 to 70 wt. parts of a rubber component (Y) comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z), the total of (X), (Y) and (Z) being 100 wt. parts, and

(ii) an underlayer comprising a polyolefinic thermoplastic elastomer (B) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X'), 30 to 70 wt. parts of a rubber component (Y') comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily

softening agent (Z'), the total of (X'), (Y') and (Z') being 100 wt. parts, which underlayer is laminated on the surface layer,

wherein the ratio (a) of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z), or if polyethylene is incorporated, to the total of the rubber component (Y), the oily softening agent (Z) and polyethylene in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z'), or if polyethylene is incorporated, to the total of the rubber component (Y'), the oily softening agent (Z') and polyethylene in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a) ≥ ratio (b).

8. (New) A roof molding according to Claim 7, wherein the polyolefin resin (X) and/or the polyolefin resin (X') contain(s) polyethylene and in addition the ratio (a') of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z) in said thermoplastic elastomer (A) and the ratio (b') of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z') in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a') ≥ 0.8 X ratio (b').

9. (New) A side molding comprising:

(i) a surface layer comprising a polyolefinic thermoplastic elastomer (A) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X), 30 to 70 wt. parts of a rubber component (Y) comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z), the total of (X), (Y) and (Z) being 100 wt. parts, and

(ii) an underlayer comprising a polyolefinic thermoplastic elastomer (B) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X'), 30 to 70 wt. parts of a rubber component (Y') comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z'), the total of (X'), (Y') and (Z') being 100 wt. parts, which underlayer is laminated on the surface layer,

wherein the ratio (a) of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z), or if polyethylene is incorporated, to the total of the rubber component (Y), the oily softening agent (Z) and polyethylene in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent (Z') to the total of the rubber

component (Y') and the oily softening agent (Z'), or if polyethylene is incorporated, to the total of the rubber component (Y'), the oily softening agent (Z') and polyethylene in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a) ≥ ratio (b).

10. (New) A side molding according to Claim 9, wherein the polyolefin resin (X) and/or the polyolefin resin (X') contain(s) polyethylene and in addition the ratio (a') of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z) in said thermoplastic elastomer (A) and the ratio (b') of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z') in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a') ≥ 0.8 X ratio (b').

11. (New) A window molding comprising:

(i) a surface layer comprising a polyolefinic thermoplastic elastomer (A) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X), 30 to 70 wt. parts of a rubber component (Y) comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an

oily softening agent (Z), the total of (X), (Y) and (Z) being 100 wt. parts, and

(ii) an underlayer comprising a polyolefinic thermoplastic elastomer (B) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X'), 30 to 70 wt. parts of a rubber component (Y') comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z'), the total of (X'), (Y') and (Z') being 100 wt. parts, which underlayer is laminated on the surface layer,

wherein the ratio (a) of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z), or if polyethylene is incorporated, to the total of the rubber component (Y), the oily softening agent (Z) and polyethylene in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z'), or if polyethylene is incorporated, to the total of the rubber component (Y'), the oily softening agent (Z') and polyethylene in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a) ≥ ratio (b).

12. (New) A window molding according to Claim 11, wherein

the polyolefin resin (X) and/or the polyolefin resin (X') contain(s) polyethylene and in addition the ratio (a') of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z) in said thermoplastic elastomer (A) and the ratio (b') of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z') in said thermoplastic elastomer (B) satisfy the following requisite;

ratio (a') ≥ 0.8 X ratio (b').

13. (New) A method of using a laminated material comprising:

(i) a surface layer comprising a polyolefinic thermoplastic elastomer (A) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X), 30 to 70 wt. parts of a rubber component (Y) comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z), the total of (X), (Y) and (Z) being 100 wt. parts, and

(ii) an underlayer comprising a polyolefinic thermoplastic elastomer (B) manufactured by dynamically heat treating, in the presence of a crosslinking agent, 10 to 60 wt. parts of a polyolefin resin (X'), 30 to 70 wt. parts of a rubber component

(Y') comprising at least an ethylene-α-olefin-non-conjugated polyene copolymer rubber and 5 to 50 wt. parts of an oily softening agent (Z'), the total of (X'), (Y') and (Z') being 100 wt. parts which underlayer is laminated on the surface layer,

wherein the ratio (a) of the oily softening agent (Z) to the total of the rubber component (Y) and the oily softening agent (Z), or if polyethylene is incorporated, to the total of the rubber component (Y), the oily softening agent (Z) and polyethylene in said thermoplastic elastomer (A) and the ratio (b) of the oily softening agent (Z') to the total of the rubber component (Y') and the oily softening agent (Z'), or if polyethylene is incorporated, to the total of the rubber component (Y'), the oily softening agent (Z') and polyethylene in said thermoplastic elastomer (B) satisfy the following requisite;

$$\text{ratio(a)} \geq \text{ratio(b)},$$

which method comprises:

using the laminated material so that the surface layer comprising a polyolefinic thermoplastic elastomer (A) becomes a surface layer of a product; and

producing the product.

14. (New) The method according to Claim 13, wherein the product is selected from the group consisting of a glass-run channel, and a roof molding, side molding or window molding for automobiles.